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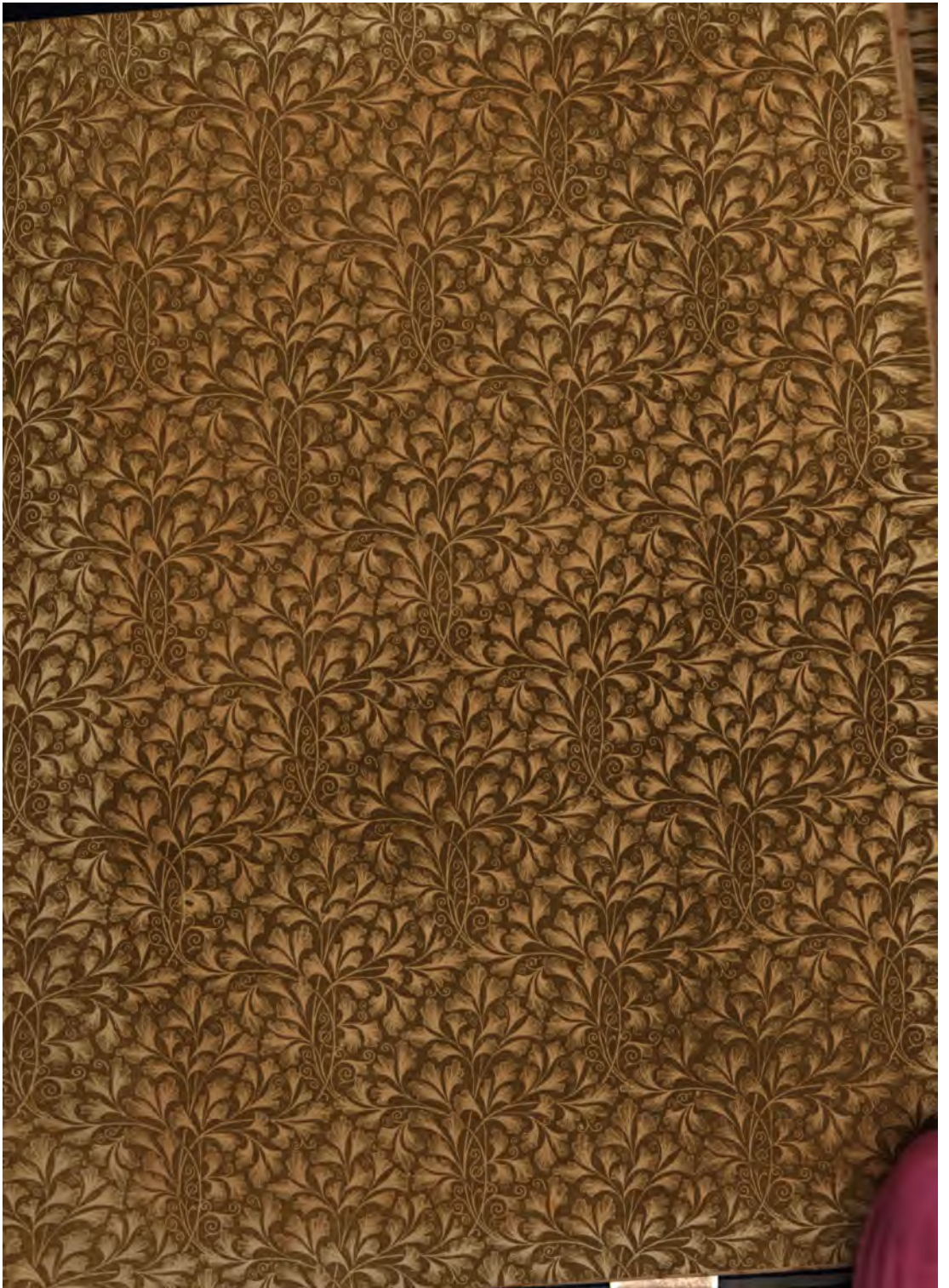
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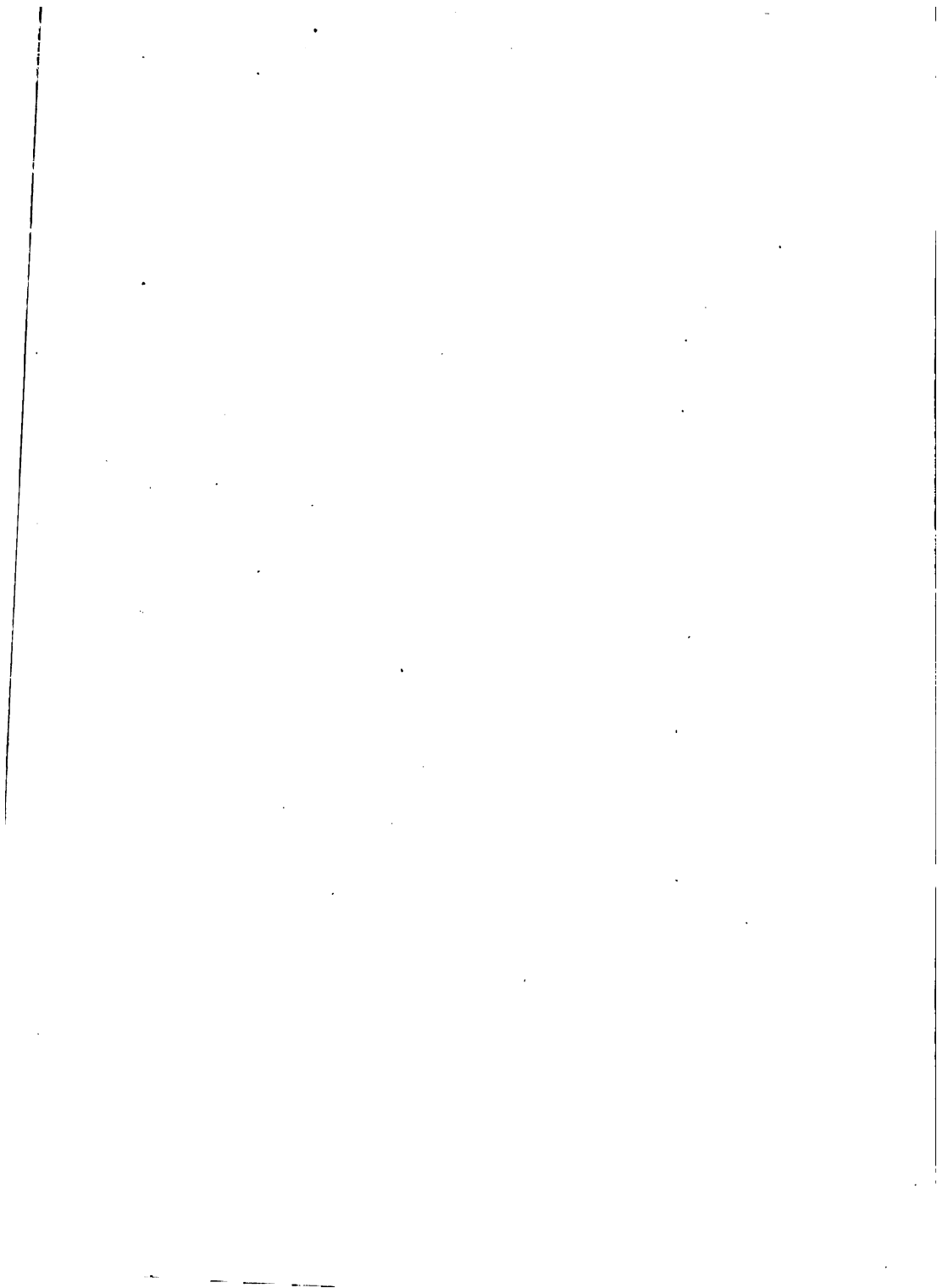
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THE GUESTS AT HOME









THE GUESTS AT HOME.

BY THE SAME AUTHOR,

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With Prefatory Letter by Dr. THEODORE KERNER.

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GRIFFITH AND FARRAN,

WEST CORNER OF ST. PAUL'S CHURCHYARD, LONDON.

E. P. DUTTON AND CO., NEW YORK.

THE
GUESTS AT HOME:

A SEQUEL TO
THE GUESTS OF FLOWERS.

BY
C. E. MEETKERKE.



GRIFFITH AND FARRAN,
SUCCESSORS TO NEWBERRY AND HARRIS,
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CONTENTS.



CHAP.	PAGE
<i>I. BUSY AND PLEASED,</i>	9
<i>II. THE BEGINNING OF THE BEE,</i>	15
<i>III. THE DWELLING,</i>	24
<i>IV. THE QUEEN,</i>	39
<i>V. THE BATTLE-ROYAL,</i>	47
<i>VI. BEE POLICE,</i>	52
<i>VII. WINGS,</i>	58





*'A bee amongst the flowers in spring is one of the cheerfullest
objects that can be looked upon.*

'Its life appears to be all enjoyment—so busy and so pleased.'

PALEY.







THE GUESTS AT HOME.

CHAPTER I.

BUSY AND PLEASED.

*'Twas I that led you through the painted meads,
Where the light fairies danced upon the flowers,
Hanging on every leaf an orient pearl.*



HILDREN, the summer is with us again, and I will tell you some more stories.

You remember about the banquet? How the lamps were lighted up, the many-coloured banners waved, the jars of honey opened; how the gay

and honest fellows were invited to the feast, and the lazy, greedy, useless, and impertinent ones kept out; how bees and butterflies and pretty flying creatures were made welcome; how they marched up boldly, singing as they came.

You have heard about all this, and seen it too. You have wandered into the green lanes, where the clematis and honeysuckle and wild roses hung tangled together in such fanciful garlands. You have rested on the many-coloured carpet, spread out so softly for you, where the grasshoppers jumped joyfully about, and the happy birds sang over your heads. You have listened to the tinkling waterfalls as they tumble over shining pebbles down the steep banks covered with moss and fern.

You have been so happy that possibly you thought it was a fairy tale—a fairy tale of insects and flowers! But yet it was all true. *'Twas I that led you through the painted meads ;'* and I have now some stranger stories still to tell you about those very guests with whom you then became acquainted.

During those sunny mornings, you only saw them in their holiday trim. You saw them decked out for the feast, rejoicing in the thoughts of the welcome they were sure to receive and the honey they were going to get.

Not idle—not a bit idle, for there is little pleasure to be found in doing nothing—but ready and willing to do the work given them to do.

So busy and so pleased. Only, you know, they cannot always live upon the wing; they cannot always be fluttering at a feast.

These tiny creatures have dwelling-places where they live and sleep, and where, also, some of them work, harder even than they do out of doors.

What do you think of our following them home?

Should you not also, in your turn, like to be a guest? Should you not like to see what they are about when the banquet is over and the evening is come, and they are all assembled together?

Are you not curious to find out what they do during the dreary days when there are no more

flowers, no lamps and banners, no feasts? what they do in the winter time?

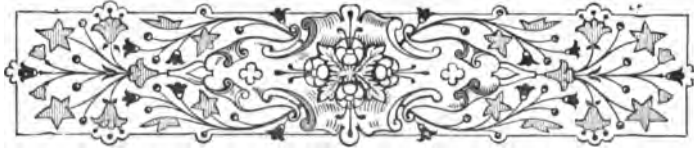
Should you not like to know if they build their own houses, or if they find them ready made? If there are any rules among them which they all obey? If the young ones are nursed and fed? If they have enemies, and can protect themselves from harm? What weapons they possess? If they are kind and helpful to one another? If they have any language?

Then let us see what has been discovered about them; and in the first place we will learn about bees, for an old writer tells us what is true, that our special admiration ought in justice to be accorded to bees, because being, as they are,

neither tame nor wild, they are marvels beyond comparison.

We shall find matter enough of wonder, and be led to proclaim the magnificence and wisdom of God, and to bless His inexhaustible bounty.





CHAPTER II.

THE BEGINNING OF THE BEE.

*Then wondrous to behold, new creatures rise,
A moving mass at first, and short of thighs,
Till shooting out with legs and impd with wings
The grubs proceed to bees with pointed stings.*

VIRGIL.



NOW bees do not come to life as we do,
having on a smaller scale the same
shape we shall always have.

They *change* as well as grow; and if you were
to trace it from its birth, you would hardly believe
that the little egg before you would turn into a

busy buzzing bee, for a bee begins by being an egg.

The first thing that happens to it is, that it is laid in a cell, a cosy compartment which has been prepared for it.

We shall see a little later how the cell has been made.

It is laid there by the queen, the mistress and mother of the hive; and this is how a curious observer who has carefully watched the ceremony describes it :—

‘ Behold the queen-bee, attended by her guard of some dozen bees, moving slowly and with dignity among her subjects. You cannot mistake her for an instant, even if you did not see how the way opened for her movements, how all

the heads of the workers are inclined towards her as she moves, and how fondly they caress her with their antennæ in passing: for she is in person every inch a queen, and bears the stamp of sovereignty upon her in most legible characters.

‘To shut out from prying eyes and invest the whole affair with the solemnity and splendour befitting the occasion, a living curtain is formed, impenetrable to all but the most patient, skilful, and fortunate eyes.

‘They connect themselves into a dense mass, a perfect grape-like cluster or living garland.

‘This is done with such wonderful skill and ease that bees can fly off from the cluster, even from its very centre, without creating confusion in the group.

‘Thus attended, and amid all the rejoicings of her subjects, the queen proceeds to a cell, thrusts her head into it to see if it be quite as it ought to be,—which of course it is, among such zealous and industrious housewives,—then turning, leaves an egg there in an upright position, and moves on to another cell.’

For four days the egg lies very quietly within its cosy nest, as far as we can tell, unchanged; but on the fifth day, it turns into a small worm, which grows and grows until it nearly fills the whole cell; and when it comes to be so big that it first touches one side of the cell and then the other side, it curves round until it is almost in the shape of a ring.

Now wood lice curve themselves round in the

same way, and once upon a time a little girl mistook some that she found in a garden for coral beads.

They were lying perfectly still, as many creatures do when they are afraid of harm happening to them : they pretend to be dead. She strung them on a thread ; and presently finding that they were not hurt, they began to uncurl, upon which the little girl flung them down in a terrible fright, not knowing what to make of such a lively necklace.

Well, now the little bee worm which has curled itself up begins to be hungry ; and it must have plenty to eat, or it will not grow—that is to say, it will not change. It has to be fed, and there are certain bees whose duty it is to feed it.

These are the nurse bees; and the food they give it, which they prepare very carefully for it, is called Bee-bread—a mixture of the pollen of flowers, honey, and water.

The nurse-bees know just how much to give it, and for how long a time; and when they think that it has fed enough, they seal it up, each in its own particular cell, and it has to begin to work for itself, which it does in this way.

It lines its cell with a sort of silky film, something like very fine gauze, drawn from its mouth in slender threads; and in this silky veil it gradually winds itself up, till it looks like an Egyptian mummy.

In the course of thirty-six hours, it becomes another creature.

It is no longer a worm. It is now changed into a nymph.

Perhaps your idea of a nymph is different from this.

You hear of 'nymphs and naiads of the grove,' and you are taken in imagination to former times when, in a grotto hung with mosses and ferns, a Roman Emperor once used to sit and listen to sweet counsels—

'By the cool fountain many a livelong even.'

You are quite right to remember Egeria: she was a nymph. But a baby bee before it comes out of its cocoon, and whilst it is bundled up like an Egyptian mummy, is also called a nymph.

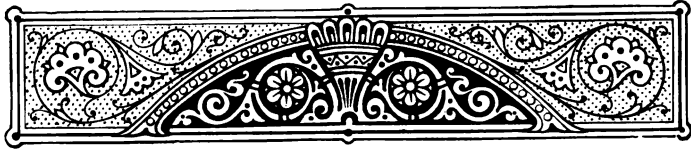
Its object now is to gnaw its way out of its cell, and get into the fresh air: the gnawing a hole in the cover of its cell does not appear to be difficult—the cover is very thin; but to get free of its veil is a different thing, and, strange to say, the bee nurses do not trouble themselves at all about the baby bees who are to become common workers in the hive.

As soon as the feeding time is over, they leave them to themselves, and do not take a bit of notice when they see the poor little creature trying to struggle out of its swaddling clothes; although they are full of attention to the drones, and to the royal princesses who are to become queens, under similar circumstances.

At last, however, it manages to get free, first

poking out its head and then its shoulders ; but it is often obliged to draw them in again, as the busy bees brush roughly by in a great hurry ; and then, gathering courage, it slowly crawls to the door of the hive, and looks out into the beautiful world.





CHAPTER III.

THE DWELLING.

*O beautiful bee homestead, with many a waxen cell,
Self-built—for hanging so it seems—that airy citadel.
An unbought blessing to man's life, which neither any hoe,
Nor axe, nor crooked sickle is needed to bestow.
A tiny vessel, and no more, wherein the busy bee
From its small body liquid sweets distilleth lavishly.
Rejoice, ye blessed creatures, regaling while ye rove,
Winged workers of nectareous food, on all the flowers ye love.*

WILSON.

BEES in their natural state choose woods,
and make their dwellings in hollow trees.

Nothing can be more reasonable than
such a choice, nothing more delightful than such
a home.

Imagine a green roof of dancing leaves, with glimpses of the far blue sky between, and a sweet carpet of blossoms ready for their daily feast—a gay and smiling welcome from every fragrant flower.

But we too like the nectar they distil, and are able to invent nothing like it. No cookery book can teach us how to make honey; so we imprison these useful creatures, putting them into hives. And then it is easy to take away as much honey as we want when they have made plenty of it, without disturbing them too much and making them angry; for bees are excitable and irritable, and have no idea of being robbed if they can prevent it.

It is very easy, when you know how to do it, to capture a swarm of bees and put it into a hive.

Now I wonder what you would do if you were taken out of your own comfortable houses, where you have tables and chairs, and a nice warm bed to sleep in, and were put into an empty box with only four walls and a cover to it ?

You would be at a loss what to do.

How would you make separate rooms, some larger, some smaller ? How would you keep out the east wind ?

How would you collect food ? and then how would you keep and store it up, so that it should remain fresh and good, ready for the cold weather, when snow covers the ground, and you could not possibly get out, however hungry you might be ?

You would be sorely puzzled, and would not know a bit what to do !

But the bees know.

Some start off into the fields in search of food. They feed themselves with honey, and bring home as much as they can carry for the builders, who cannot leave their work, as we shall presently see. Wallflowers, hawthorn, ivy, honeysuckle, laburnum, have all welcomed their hurrying guests, who know exactly where to find the sweetest cups. They have packed up some pollen too—that yellow dust which is found on the stamens of flowers—and put it in their baskets.

‘But,’ you will ask, ‘have bees really got baskets? Do they carry baskets when they go out to gather honey?’

Yes; they have very convenient baskets—or you may call them pockets, four on each side. And they are best to be seen in the really working bees, for they have to turn their honey into wax. The nurse-bees have smaller pockets, and the queen and the drones have none.

The drones are idle fellows who do no work.

Did you ever read Shakespeare's description of the bee community? It is very pretty and very correct, only that in his day the head of the hive was called a king. We know better now. The head of the hive is the queen and mother of the bees. I will read you the lines :—

' They have a king and officers of sorts,
Where some, like magistrates, correct at home ;
' Others, like merchants, venture trade abroad ;

Others, like soldiers, armed in their stings,
Make boot upon the summer's velvet buds ;
Which pillage they with merry march bring home
To the tent royal of their emperor,
Who, busied in his majesty, surveys
The singing masons building roofs of gold,
The civil citizens kneading up the honey,
The poor mechanic porters crowding in
Their heavy burdens at his narrow gate,
The sad-eyed Justice with his surly hum
Deliv'ring o'er to executors pale
The lazy yawning drone.'

Now, the fate of the 'lazy yawning drone'
is very sad; for when they become too great a
burden to the rest, they are killed by the bee
police.

But this poetry has taken us away from the
point.

Now, whilst the workers are out collecting food for themselves and the rest of the community, something very curious is going on inside the hive; so let us leave the honey gatherers, and see what those who are at home are doing. They have already begun to make their dwelling habitable.

A cluster of bees have fixed themselves by their fore legs on to the top of the hive, whilst their hinder legs hang down. Then other bees come up and fasten themselves on to these dangling legs, so as to make a ladder which reaches from the top to the bottom of the hive. A desperately heavy load for the top bees; but they never let go their hold. They would rather let their legs be broken.

A good many festoons or garlands of bees are hung from the roof before the real business of building can begin.

But now a single bee steps forth: they all make way for him; he is a very important personage. Out of one of his pockets you may see the pellets of wax appearing, with which he is going to build; he has them there very handy. It is his task to lay the first stone of the structure, which he does by fixing a block of wax about half an inch in length to the top of the hive: the others do not interfere; they stand and wait. It is always a single bee who begins. Close at hand are the wax workers, whose business it is to supply him with material, to keep the wax ready for him. One after another

they mount the stationary staircase of bees, and taking a sufficient quantity of wax out of their pockets with their hind feet, they raise it to their mouths and work it about until they can draw it out in narrow ribbon. They draw it out, and then they mash it up again! A second time they draw it out, when it is fit for use, and is handed over to the architect.

Perhaps you will tell me I am giving you some hard words, but they are not so hard as some others I could use, if that is any comfort to you.

As soon as the block is properly shaped and steadily fixed, some more workers begin. They make a small basin-like hole on each side of the block. They do not waste the wax they hollow out, but add it to the sides of the hole

until it becomes a six-sided cell, which is the very best possible shape for strength and convenience.

Each comb in a hive is composed of two rows of cells backed against each other; and there are narrow streets between one comb and the next comb, just wide enough for two bees to come and go abreast. The floor of the cells is made of three pieces in the shape of the diamonds on playing cards.

Every wall is the wall of two cells. Each roof is a floor. Each floor is a roof.

But every cell is perfect in itself, so that the walls, and roofs, and floors, are double; and a single cell, if it were separated from the rest, would still be perfect.

The cells are not all alike in size: those where the eggs of the drones are to be laid are rather larger than those of the workers; and in the centre of all, there are three or four splendid chambers which it takes more wax to make than a hundred of the common sort. These are the royal cells, and here are to be laid the eggs which produce young queens.

Now, besides wax, the builders use a sort of varnish, with which they plaster up odd holes and corners, and which they get from poplar, birch, and willow.

The poplar buds are full of it; but it has to be taken when the sun is high, and the bees have to make haste home with it, for it is so sticky that were it to get dry they would

find some difficulty in getting it out of their baskets.

Bees have been seen to play a rather shabby trick on one another; and when a busy fellow had got his load of propolis, as this varnish is called, another who had got none would come behind and carry it off!

In this way the gatherer would be robbed of two or three loads, but he would go back and collect more without seeming at all angry. Now it is just possible that this transfer had been settled between them by means of some language which we cannot understand, and that it was only a division of labour and not a robbery.

Propolis, besides shutting out draughts, is useful in another way. It sometimes happens that an

insect or a slug will make its way into the hive, and then the bees hasten to kill it; for they have no patience with unbidden guests, or indeed with any guests at all; and if the creature they kill with their stings, which I need hardly tell you are very fearful weapons, be too big to be carried away, as a slug is, they cover it up with propolis. If it should be a snail, they plaster up the shell, for the snail has very naturally retired inside after the first thrust.

Bees are very clean and tidy, so you may fancy they are not likely to leave the dead body of a slug about; for slugs are not attractive creatures, even when their acquaintance is made under the most agreeable circumstances.

Thus the bees make their dwellings, arrange

their rooms, keep out intruders, or kill and bury them should they happen to get in.

Some people think that wooden hives are best, and some, hives made of straw.

A great bee fancier once finished an argument, as he thought, very triumphantly, by asking if bees in their natural state were likely to prefer a good big hollow tree or a truss of hay for a residence. Another writer makes us laugh by saying that it would be an interesting experiment to place several straw hives in those American forests where the wild bee is found, in order to see whether the sagacious fellows would take to them, as wrens will take to an empty pumpkin or a little box with a hole in the side.

Now it is a curious thing that human beings,

with all their knowledge, are often very unreasonable; but birds, and bees, and butterflies, have always a good reason for everything they do, and if we watch them, we shall often be able to see quite clearly what that reason is.





CHAPTER IV.

THE QUEEN.

*An angry hive of bees
That want their leader, scatter up and down,
And care not whom they sting.*

SHAKESPEARE.



HE queen is the mistress and mother
of the hive.

She is the first person in the bee
kingdom, and is very dear and precious to her
subjects.

She is larger and longer, and more elegant

in body ; her wings are shorter, and cross slightly when she is at rest ; her legs and antennæ are of a paler colour ; her sting is curved, whereas that of the working bee is straight.

The antennæ or horns are very curious organs : they have been thought to be organs of hearing, that they serve as guides to the bees in their dark hives, and that by means of these antennæ they speak to one another.

If deprived of them, an insect appears quite bewildered, and can no longer procure food, guide itself, or even direct its mouth to the food placed before it.

Now eggs which have been laid in royal cells are differently fed from the others, and are more carefully watched by the nurse bees.

As soon as a young queen is ready to come forth, she is helped to throw off her veil: the nurses brush her coat and stroke her down, and seem to admire her very much; she is indeed a handsome creature in her mantle of velvet and fur.

As soon as she is strong enough, she goes out; but she is rather timid at first. She flies back and takes a good look at the hive, that she may be sure to know it again; and then she flies up into the air, and remains absent for about an hour.

It is her only journey: after that she is the model of a mistress and mother, and is always to be found attending to her home duties.

The love her subjects have for her is very great;

and if by any chance she should be hurt, or taken away from them, they dash about in a distracted manner, and cannot be easy till they know that she is safe. It is quite clear that bees must have a language, and must be able to communicate with one another; for Huber, a great naturalist, who spent his life in watching the ways of insects, tells us that he once divided a swarm of bees into two companies, placing the queen in one.

This company was quite content, but that which was without the queen soon showed great signs of trouble: they ran about looking for her in every direction; and it was evident they knew that she was not amongst them, although how they came to know it is quite a mystery,

since it is impossible in such a great company of bees—perhaps more than a thousand—that every one of them should be able to see her every minute of the day.

Now when they were in the middle of their perplexity, Huber opened a little grating which he had placed between the two companies, and then either the queen herself must have come forward to the grating and showed herself to her anxious people, or else those that were about her must have told the others she was safe, for they grew quiet all at once.

Their loyal, loving hearts were somehow set at rest.

Another experiment was tried; but it was such a cruel one that it seems a pity to have

made it, though it proves how fond and faithful even tiny bees can be.

It was Doctor Warder who tried the experiment, and this was what he did.

Having shaken the bees out of a hive on to the grass (it was quite a new hive, and no combs had yet been made in it), he looked about for the queen, and having found her, he put her with a few attendants into a box and took her into his own room, where he clipped off one of her wings.

As soon as the swarm of bees began to miss her, they got into a sad flurry, and began to look about very anxiously for her; so the doctor gave her back to them, and put them all into the hive for the night.

As soon as the morning was come,—and the bees must have been very hungry,—he let them all out; but when they saw that the poor queen could not move on account of her clipped wing, they would not leave her, and after five days and nights they actually died of hunger. Neither would the queen eat when she was taken away from her subjects, although honey was offered to her.

I think this was a very cruel experiment.

Now the bee kingdom cannot exist without a queen; but the affectionate creatures will not have a stranger all at once, after losing their beloved mistress. They treat a new one very badly, and gathering round her, they starve her to death.

In about eighteen or twenty hours, however, their time of mourning is over, for the life of bees is short, and then they welcome a new queen with every sign of joy.





CHAPTER V.

THE BATTLE-ROYAL.

*Governed by no other sway
Than purest monarchy.*

MONTROSE.

ONE queen alone reigns in a hive. Should another introduce herself during the lifetime of the reigning monarch, one of the two must die.

This is bee law.

And, strange to say, it is the reigning monarch herself who must attack the usurper, even if she

herself should be killed in the fray; and this is a fact so perfectly accepted by her subjects, that, devoted as they are to her, they will not allow her to shirk the duel, but, forming a circle round the two, they so enclose them that there is no possibility of flight. Not that the sovereigns are, generally speaking, chicken - hearted; on the contrary, they can endure more pain, and have better constitutions than the workers, and, moreover, are often ready to do battle when there is no occasion for it, and like many other creatures, are sometimes jealous even without a cause.

For instance, should a young princess, when she first comes out of her cell, imagine that there are any rivals ready to come out too,

she throws herself into a violent passion. She rushes to the other cells, and, if she could succeed in tearing them open, would sting the gentle nymphs to death. But this is prevented, for the cells are watched and guarded, we suppose, by bee police. They warn her away, and would even bite her if she persisted in her wicked intentions.

She would almost be in danger herself but that she is in possession of some magical words by which she can prevent even the police from touching her.

She has been seen to stand with her wings crossed behind her uttering these mysterious sounds, when the guards would suddenly stand still, not daring to approach. She is their queen.

And now for a description of the battle, which is permitted by the guards and even insisted upon.

If two queens leave their cells at the same moment, they immediately attack one another. They seize hold of the antennæ, and by curving their bodies come into such a position that they could sting one another to death ; but knowing this, they each fall back a little, and wait.

Gathering courage, they come on again. The workers, in the meanwhile, stand round in a state of great excitement, and if either of the queens attempt to fly, they seize her by her limbs and keep her prisoner.

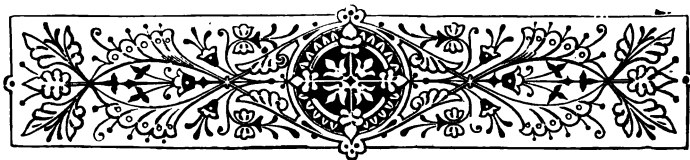
At last the strongest queen darts on her rival, catches hold of her wing, and rising above her,

pierces her with her sting as sharp as the prick of a very sharp sword.

Now the sentinels which are set to guard the door are very careful not to let in any stranger ; and if a foreign queen should venture in, they lay hold of her legs and wings with their teeth, and crowd so closely round her that she cannot move or breathe.

They do not sting her : that is against bee law ; for she is royal, even if she be impertinent. They close round about, and very respectfully suffocate her.





CHAPTER VI.

BEE POLICE.

Little dost thou think, thou busy, busy bee !

What is the end of thy toil.

When the latest flowers of the ivy are gone,

And all thy work for the year is done,

Thy master comes for the spoil.

Woe then for thee, thou busy, busy bee.

SOUTHEY.

BEES having plenty of treasure, are sure to have plenty of foes.

Birds, mice, slugs, ants, spiders, and some of their own kind are about the worst—

robber bees and corsair wasps, who, instead of depending on their own industry, live chiefly on plunder. A corsair wasp is a match for three bees. So both by night and day the hive is strictly guarded, and there are certain bees set apart for this duty.

Sentinels—magistrates—police. They see that all is orderly and quiet, that there is no idleness, that there are no intruders. They examine those who go in and out, and if they have any doubt, they touch the suspected party with their feelers. Then they know directly all about him. They have been seen to discover an offender, to bring him to the front of the hive, to throw him down and sting him to death. They know what crime he has committed; perhaps he has done some-

thing very bad indeed ; or it may be he is only a stranger, for to be a stranger in a hive is in itself a crime. No loiterers or busybodies are ever tolerated in a hive.

The bee police are very quick to discover a theft : if honey is taken out, they soon follow it and try to bring it back.

Now this is a true story.

A few pounds of honey had been taken from a hive by its owner, and placed in a room with the door shut ; but the bee police got in at the window, found out the comb, and hurried backwards and forwards till they had emptied it of honey and taken every bit of it back to the hive !

There is, however, a foe which is too clever even for bees.

This is an insect called the Honey Moth, which is very small and lively, and manages to slip past the sentinels and lay its eggs in the combs.

There is a terrible fuss in the hive when one of these little intruders has succeeded in getting in: it is chased by every bee, and, if caught, its fate would be sealed; but it runs swiftly about, doubling and twisting, and generally finds some hole or corner in which to hide.

This is a regular robber. Once it has made a nest for itself, there is no getting rid of it.

It builds a lot of little tunnels here and there, feeding away upon the wax, honey, and bee-bread, and is altogether without any sort of conscience.

Indeed, if it gets fairly lodged within a hive, it

becomes such a nuisance that bees have actually been known to leave their habitation on account of the disturbance it has caused them.

The bee police, besides taking care to keep out unwelcome guests, and seeing that the place is clean and tidy and everybody hard at work, are also charged to see that the hive does not get too hot; and if they find that there is not air enough, what do you think they do?

Two parties are chosen, one larger than the other.

The larger party stands before the door, the smaller party turn their backs to it. They then join together the tips of their wings and move them about so quickly that one can hardly see that they are wings at all.

This is their fan, and you know how cooling it is to be fanned.

A quaint old writer tells us that another duty of the bee police is to wake the workers in the morning with a humming noise, repeated twice or thrice, just as it were the sounding of a trumpet; and when night comes on, the signal being given by the trumpeter, the common sort are commanded to their lodging, and the watch being set, every one betakes himself to his rest.

And so—

‘The sun declining through the murky air,
Home to their hives the vagrant band repair,
There in soft slumber close their willing eyes,
And hushed in silence the whole nation lies.’



CHAPTER VII.

THE WINGS.

*I'd be a butterfly, living a rover,
Dying when fair things are fading away.*

HAYNES BAYLY.

NOW besides bees there are other guests which are welcome to flowers. Almost all winged insects are welcome, and this, as you already know, because they fly rapidly through the air and carry the pollen they take from one flower to another; whilst a wingless insect,

crawling and clambering along, often leaves more than half its treasure by the way.

Another reason is, that flying creatures generally keep to one sort of blossom at a time, going from plant to plant, but never sipping from a different kind; whilst crawling things cannot from their very nature be so particular, but are obliged to put up with whatever they can get, whatever comes in their way.

Now, if you remember what you have been told, you will understand perfectly why flowers delight in wings.

But butterflies and moths, like bees, begin by being eggs, and in the selfsame manner they change as well as grow.

An insect when first it comes out of its egg

is called Larva, and commonly, a caterpillar or a grub. This changes gradually into a nymph, and when the nymph throws off her veil, there stands a lovely butterfly.

‘The nymph or chrysalis,’ we are told by a man who spent all his life in trying to find out everything about insects,—‘The nymph or chrysalis is nothing but the very insect which may one day be expected from it; so that as the flower breaks from its surrounding cup, the limbs of the enclosed insect, by the power which swells and shoots them forth, must in the same manner, at last, burst their prison and make their appearance.’

This is more true and far more easy to believe than what is usually called a *metamorphosis*,

that is, a complete change—much more easy to believe than that, as if touched by a magic wand, a seemingly dead grub should throw off its cloak and turn into a living butterfly !

The lives of moths and butterflies are short but very pleasant. To go to sleep in a lily, to sip honey out of a violet, to bathe in a dewdrop—all this must be very pleasant. But, children, you need not envy them, for you too are rich in pleasures ; you can always be grateful and gay, almost always busy and pleased.





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